

ABSTRACT

The present invention relates generally to a method for the detection of genetic expression in cells. More particularly, the present invention is directed to a method of monitoring the transcriptional activity of genetic elements including genes in a cell and more particularly to a method of determining at a quantitative, semi-quantitative or qualitative level the transcriptional activity of selected genetic elements in a cell. The present invention is further directed to a method for analyzing run-on transcription in cells and cellular organelles such as a nuclei, mitochondria and/or chloroplasts. The present invention further contemplates the use of real-time detection analysis in an amplification assay for the determination of run-on transcription in a cell and/or cellular organelles such as a nuclei, mitochondria and/or chloroplasts. The present invention further provides a kit including components of or for a kit, preferably packaged for sale with instructions for use, in the determination of the level of run-on transcription in a cell or cellular organelles such as a nuclei, mitochondria and/or chloroplasts. The method of the present invention provides, therefore, a sensitive method for the determination of genetic expression in a cell which is rapid and cost effective.